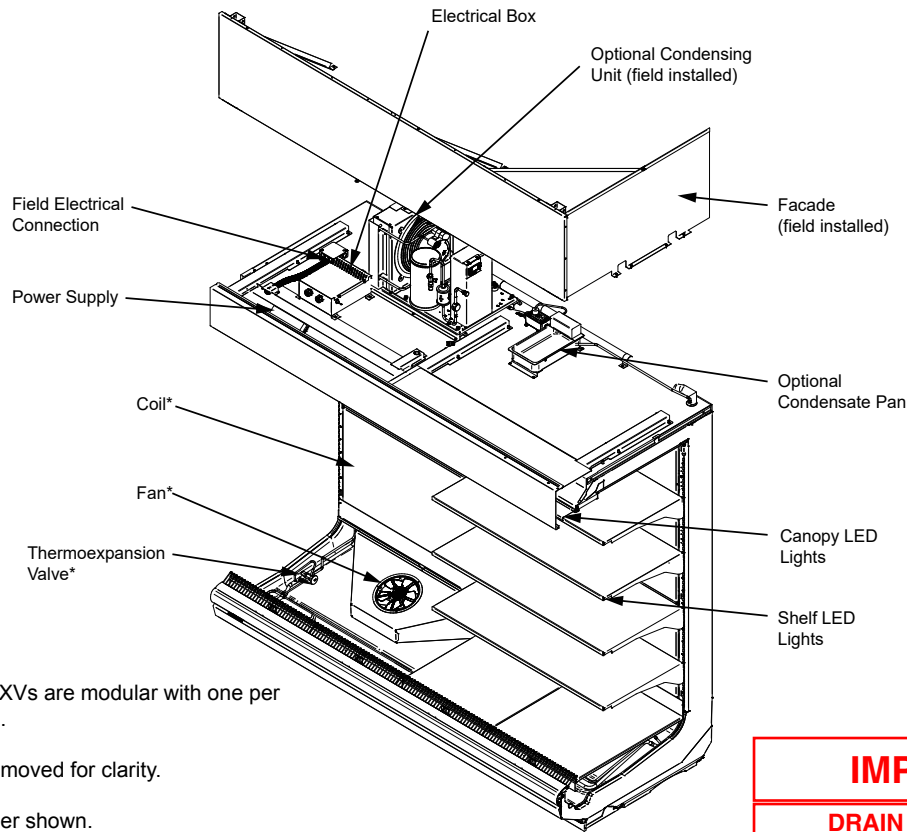


Insight standard field electrical connections are at the top left of the merchandiser



*Coils, fans and TXVs are modular with one per 3 or 4 foot section.

Portion of parts removed for clarity.

8 foot merchandiser shown.



IMPORTANT

**DRAIN EXTENSION KIT
REQUIRED TO PIPE MULTIPLE
CASES TO ONE DRAIN OR TO
USE A RAISED HUB DRAIN**

NSF Certification

This merchandiser model is manufactured to meet NSF/ANSI (National Sanitation Foundation) Standard #7 requirements for construction, materials and cleanability.

Performance Data	Page 2	Estimated Shipping Weights	Page 7
Product Data (AHRI Statistics)	Page 2	Shelf Options	Page 7
Cross Section	Page 3	Wiring Diagrams	Page 8
Plan View	Page 4	Computing Refrigeration and Electrical Load	Page 11
Electrical Loads	Page 6	QR Code for Parts and Product Information	Page 11
		Revision History	Page 11

Data sheet-Insight IDF5SU

We reserve the right to change or revise specifications and product design in connection with any feature of our products. Such changes do not entitle the buyer to corresponding changes, improvements, additions or replacements for equipment previously sold or shipped.

Insight IDF5SU
Dairy / Deli /
Beverage / Produce

Refrigeration Data ¹

IDF5SU		Optimal Shelf Life	Energy Comparison
Application		Dairy/Deli/ Beverage/ Produce	AHRI 1200 Rating Point ³
Unlit Shelves	Discharge Air °F (°C)	33 (0.55)	35 (1.66)
	Average Evaporator °F (°C) ²	28 (-2.22)	30 (-1.11)
	Parallel Btu/hr/ft (Watts/m) ⁴	1285 (1236)	1200 (1154)
	Conventional Btu/hr/ft (Watts/m) ⁴	1400 (1347)	1310 (1260)
Lit Shelves	Discharge Air °F (°C)	32 (0)	34 (1.11)
	Average Evaporator °F (°C) ²	27 (-2.77)	29 (-1.66)
	Parallel Btu/hr/ft (Watts/m) ⁴	1305 (1255)	1220 (1174)
	Conventional Btu/hr/ft (Watts/m) ⁴	1420 (1366)	1330 (1279)
Fan Speed ⁵	IDF5SU6 (8.25")	1500 ⁵	1500 ⁵
	IDF5SU4, 8, 12 (8.25")	1500 ⁵	1500 ⁵

Notes:

- All data based on store temperature and humidity that does not exceed NSF Type 1 ambient conditions of 75°F and 55% relative humidity except where noted.
- Average evaporator temperature shown. Use dew point for high glide refrigerants for unit sizing. Care should be taken to use the dew point in PT tables for measuring and adjusting superheat. Adjust evaporator pressure as needed to maintain discharge air temperature shown.
- AHRI 1200 Rating Point for energy consumption comparison only.
- Add 10 Btu/hr/ft (9.6 Watts/m) per shelf row for LED shelf light fixtures.
- Some lengths and/or applications require optional fan speed control kits applied by the Hussmann Product Configurator
- Reduce refrigeration load by 15% if fitted with CaseShieldPTM.

Defrost Data

Frequency (hours between defrost)	4
Defrost Water ⁷	10.0 lb/ft/day (14.9 kg/m)
⁷ (± 15% based on case configuration and product loading).	
OFFTIME	IDF5SU
Time (minutes)	20
ELECTRIC OR GAS	Not Available

Conventional Controls

IDF5SU
Low Pressure Backup Control CI/CO ⁸
20°F /10°F -6.7°C / -12.2°C

⁸ Use a Temperature Pressure Chart to determine PSIG conversions.

Total Working Charge ⁹ IDF5SU

8 ft	7.4 lb	118 oz	3.4 kg
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⁹ Working charge with recommended Hussmann condensing unit installed.

Refrigerant Type R448A

Product Data

Gross Refrigerated Volume ¹⁰ (Cu Ft/Ft)	12.1 ft ³ /ft (1.12 m ³ /m)
AHRI Total Display Area ¹¹ (Sq Ft/Ft)	5.05 ft ² /ft (1.54 m ² /m)
Shelf Area ¹² (Sq Ft/Ft)	9.82 ft ² /ft (2.99 m ² /m)

¹⁰ AHRI Gross Refrigerated Volume: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]

¹¹ Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]

¹² Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (4) rows of 22-in. shelves

Insight Multideck Merchandiser, Freedom, 5 Display Levels, Standard Bottom, Ultra Low Height Front

Insight IDF5SU
Dairy / Deli /
Beverage / Produce

DOE 2017
Energy Efficiency
Compliant

Husmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2017 energy efficiency standards.

Dimensions shown as in. and (mm).

Other optional kits (top piping and vent fans) add to the overall case height.

A minimum 1 1/2-in. clearance required to remove raceway cover, 6 1/2-in. for full access. See the Installation manual for instructions.

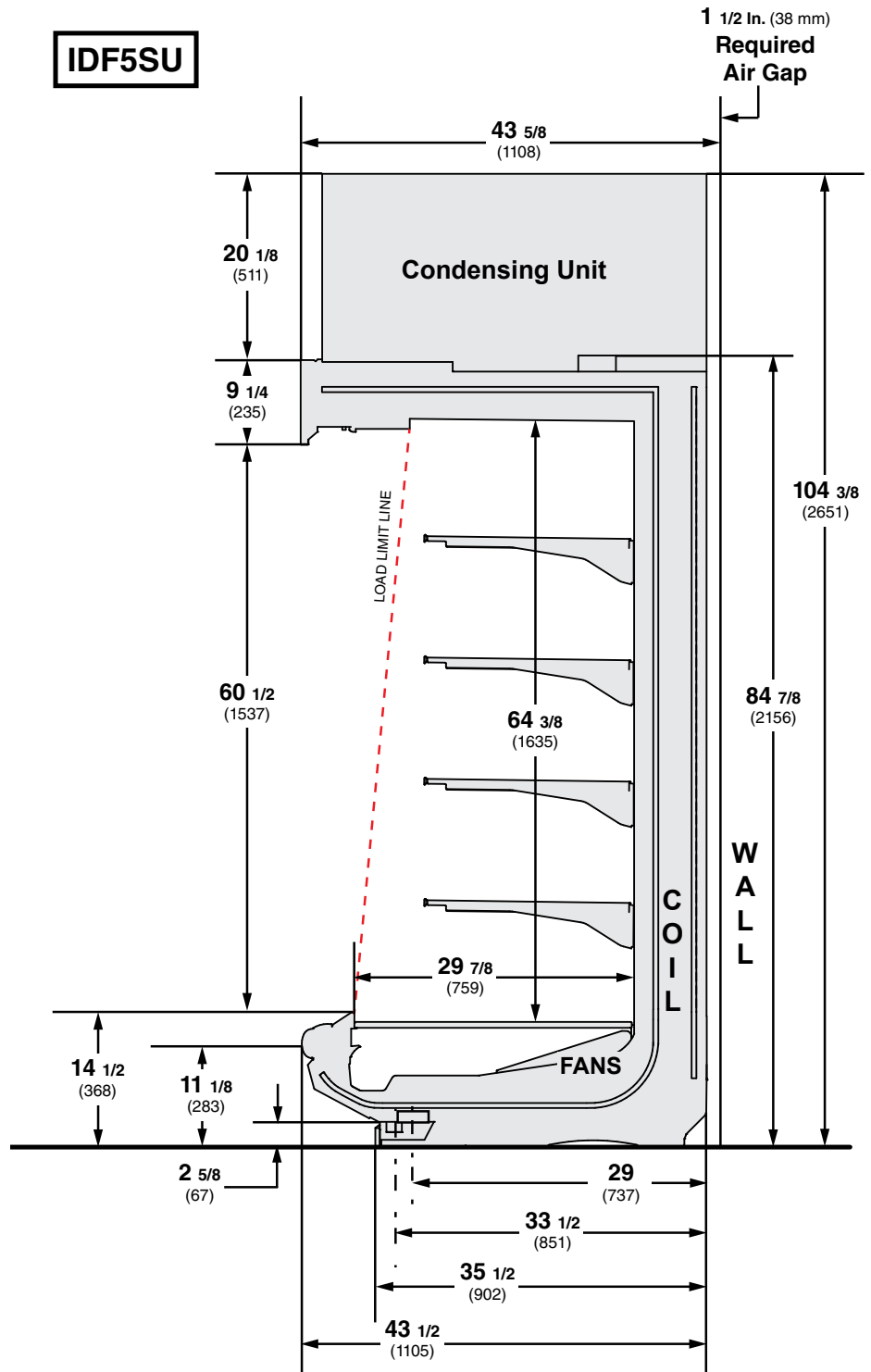
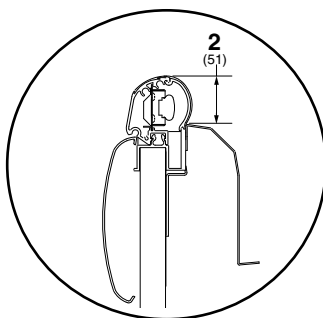
3-in. between back to back cases.

Shelf complement shown as tested:

Four rows of 22-in. shelves spaced equally between bottom display pan and interior top panel.

Shown with Ellipse Option Canopy and Bumper.

OPTIONAL RAIL LIGHT

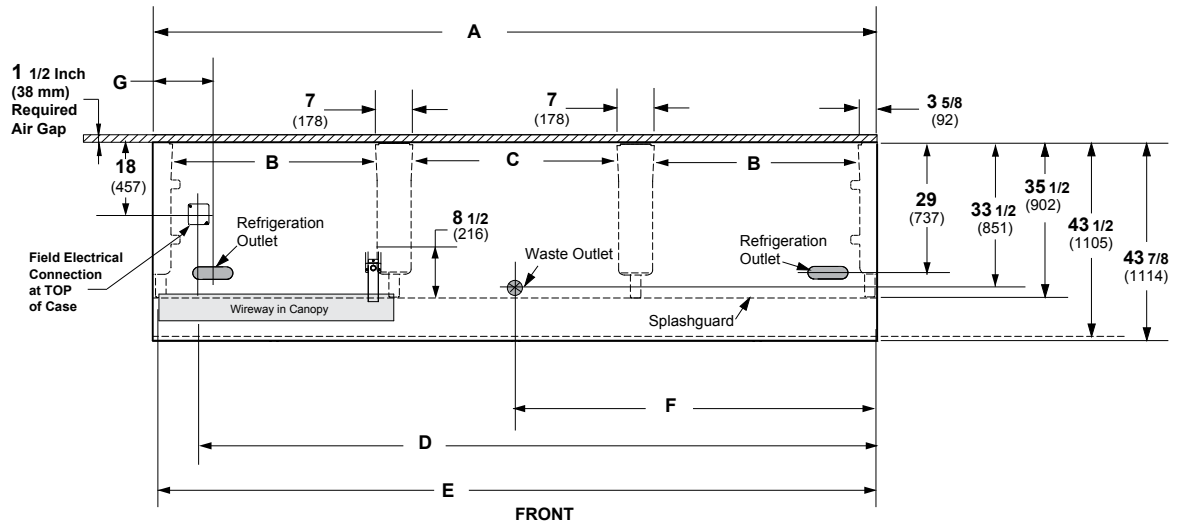


Engineering Plan View

IDF5SU

**WARNING: Floor Drain must be located within 24 inches of Waste Outlet.
See page 5 for Drain Extension Option
(must be used with hub-style floor drains).**

Dimensions shown as in. and (mm).



(12 Foot Model shown above)

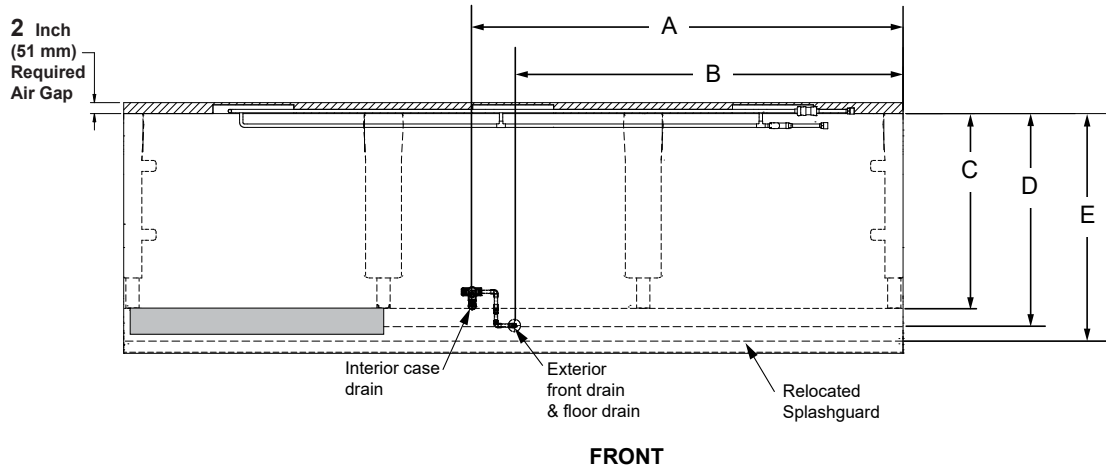
	8 ft
General	
(A) Case Length (without ends or partitions) (Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.)	96 1/4 (2445)
Maximum O/S dimension of case back to front (includes bumper)	43 1/2 (1105)
Back of case to front of splashguard	35 1/2 (902)
(B) Distance between edges of external legs and center legs	41 (1041)
(C) Distance between edges of center legs	NA
Distance between front legs and splashguard	8 (203)
Electrical Service (Field Electrical Wiring Connection)	
(D) RH End of case to center of Field Electrical Wiring Connection (top of case)	87 1/2 (2223)
Back of case to center of Field Electrical Wiring Connection	18 (457)
Length of electrical wireway	45 7/8 (1165)
(E) RH end of case to LH end of electrical wireway (top of case)	94 1/2 (2400)
Waste Outlets (see page 5 for drain extension option)	
(F) RH End of case to the center of waste outlet	24 1/8 (613)
Back O/S of case to center of waste outlet(s)	33 1/2 (851)
Schedule 40 PVC drip pipe	1 1/4 (32)
<i>Floor Drain must be located within 24 inches of Waste Outlet.</i>	
Refrigeration Outlet	
(G) Back of case to center of refrigeration outlet	29 (737)
End of case to center of refrigeration outlet	8 1/2 (216)

Engineering Plan View

Insight IDF5SU
Dairy / Deli /
Beverage / Produce

Waste Outlet Drain Extension Option

Dimensions shown as in. and (mm).

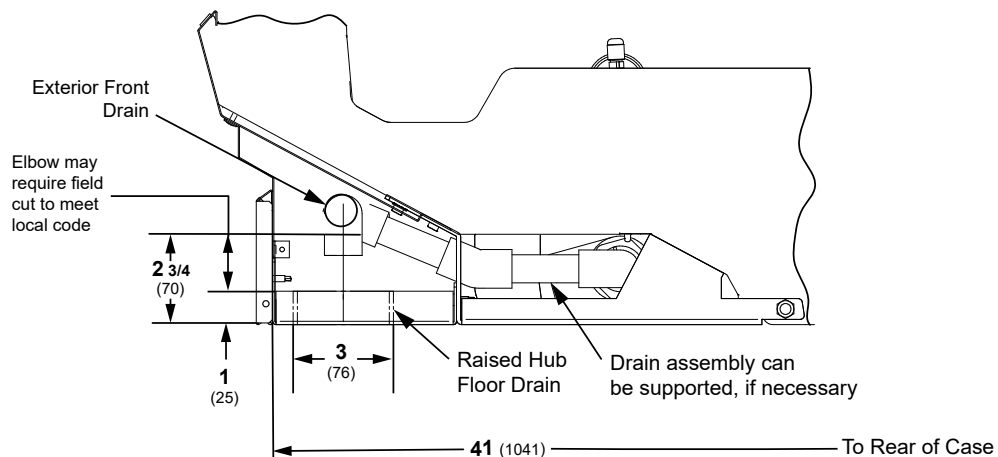


FRONT

(12 Foot Model shown above)

Waste Outlet Drain Option	8 ft
(A) RH of case to center of interior case drain	24 1/8 (613)
(B) RH of case to center of exterior front drain and floor drain* *Drain extension shown piped to the right but may be either direction	13 3/4 (349)
(C) Back of case to center of original waste outlet	33 1/2 (851)
(D) Back of case to center of relocated waste outlet (with drain extension kit)	38 1/4 (972)
(E) Back of case to the back of the relocated splashguard (with drain extension kit)	41 (1041)

Partial End View



IMPORTANT:
DRAIN EXTENSION KIT REQUIRED TO PIPE MULTIPLE CASES TO ONE DRAIN OR TO USE A RAISED HUB DRAIN

IMPORTANT: If the hub drain is used instead of a flush floor sink, a drain extension kit must be installed. Hub drains must be located in front of the waste outlet because of the required air gap.

Electrical Data

Number of Fans	8 ft		
8.25-in.	2		
	Amperes	Watts	
Evaporator Fan	8 ft	8 ft	
208V 3 ph 50/60Hz Energy Efficient	0.33	34	
Minimum Circuit Ampacity			
208V 3 ph 50/60Hz Energy Efficient	15.3		
Maximum Over Current Protection			
208V 3 ph 50/60Hz Energy Efficient	20		

Lighting

ONLY LIGHTING CONFIGURATIONS THAT ARE COMPLIANT WITH THE U.S. DEPT. OF ENERGY (DOE) 2017 REGULATION ARE AVAILABLE FOR SALE FOR USE IN THE U.S.A.

	Amperes	Watts
	8 ft	8 ft
LED LIGHTING		
EcoShine ULTRA Canopy Lights		
1 Row EcoShine ULTRA	0.21	43
EcoShine II Canopy Lights		
1 Row EcoShine II	0.18	37
1 Row EcoShine II HO	0.25	52
EcoShine II Shelf Lights		
1 Row of Shelves	0.09	19
2 Rows of Shelves	0.19	40
3 Rows of Shelves	0.28	58
4 Rows of Shelves	0.38	79
5 Rows of Shelves	0.47	98
6 Rows of Shelves	0.57	119
EcoShine II Rail Light-1 Row	0.09	19

ENDS or PARTITIONS

Each standard end and each insulated partition adds 1 1/2 in. (38 mm) to case line up. Optional view end with end bumper adds 3 3/4 in. (95 mm).

PHYSICAL DATA

Merchandiser Drip Pipe (in.)	1 1/4
Schedule 40 PVC	
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	7/8

ESTIMATED SHIPPING WEIGHT †

Case	8 ft	Solid End
		(each)
lb (kg)	1200 (544)	100 (45)

† Actual weights will vary according to optional kits included.

Shelf Options

Approved shelf sizes for standard (horizontal, 2-3 position brackets) displays:

18-inch
 20-inch
 22-inch
 24-inch

Contact engineering for non-standard (4 position brackets or other) display recommendations.

Minimum number of Shelves: 4

Optimal number of Shelves: 4

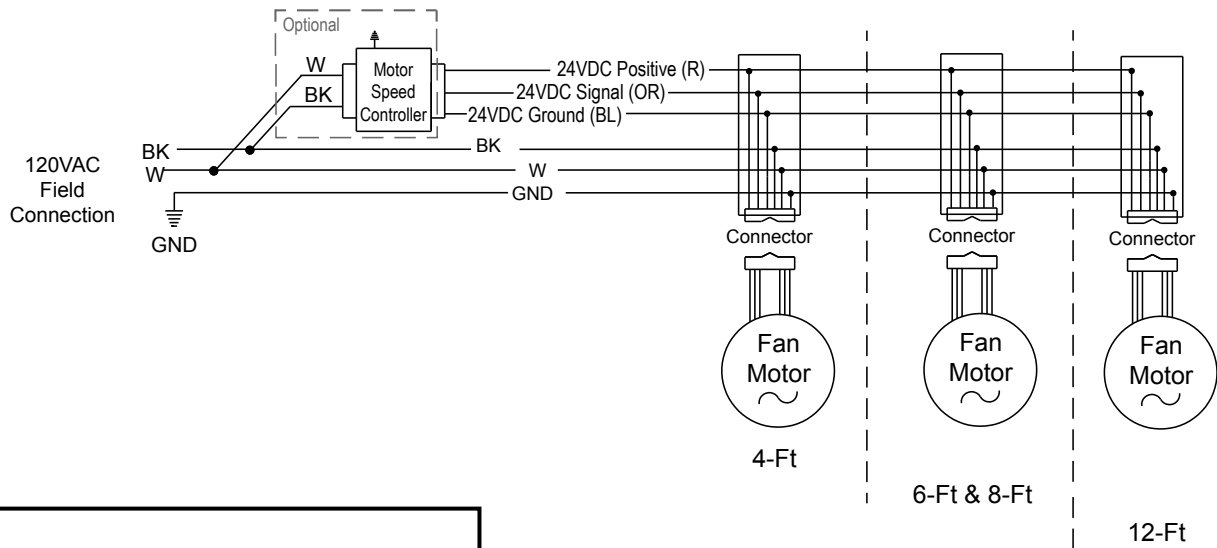
Maximum number of Shelves: 8

Maximum number of Lighted Shelves: 6

Standard shelf complement for test purposes: (4) 22-in. shelves, evenly distributed vertically

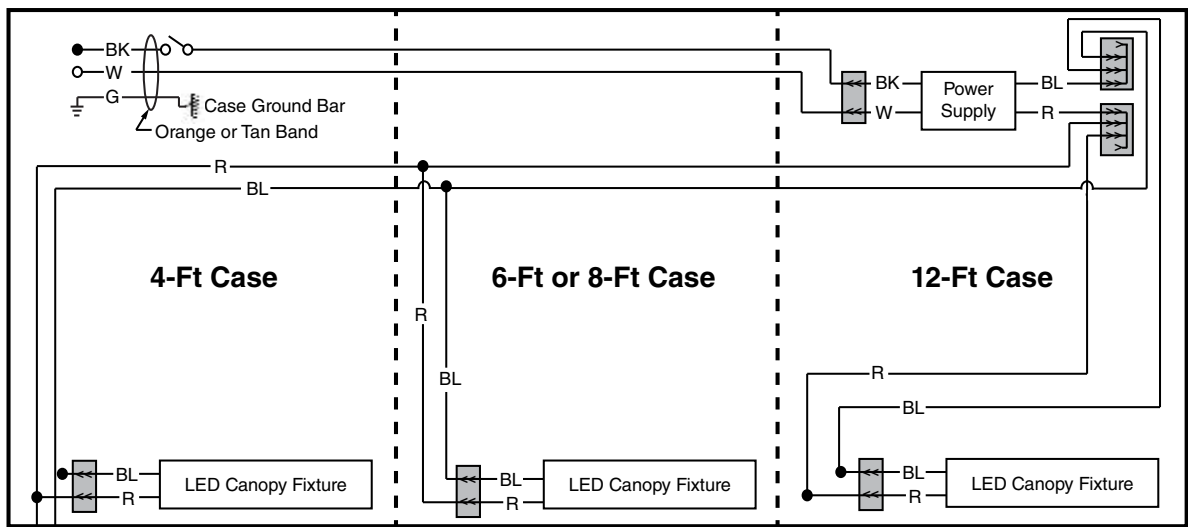
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Fan Wiring
Offtime Defrost

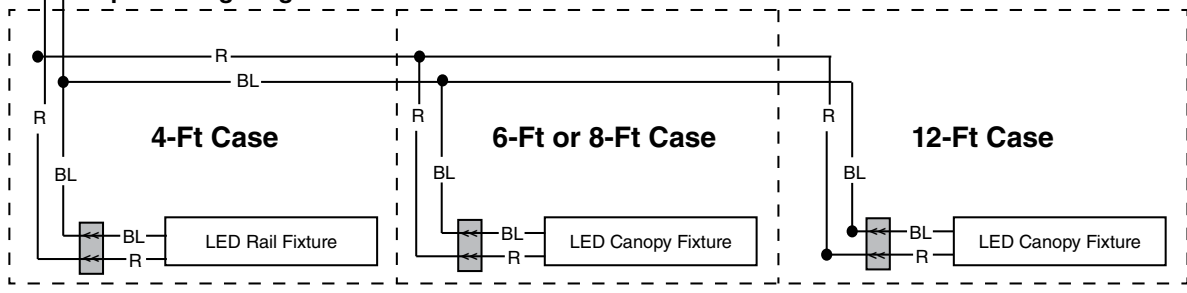


LED Canopy Light Circuits

EcoShine II LED Canopy Lighting - 1 Row



Optional Lighting - EcoShine II LED Rail - 1 Row



WARNING

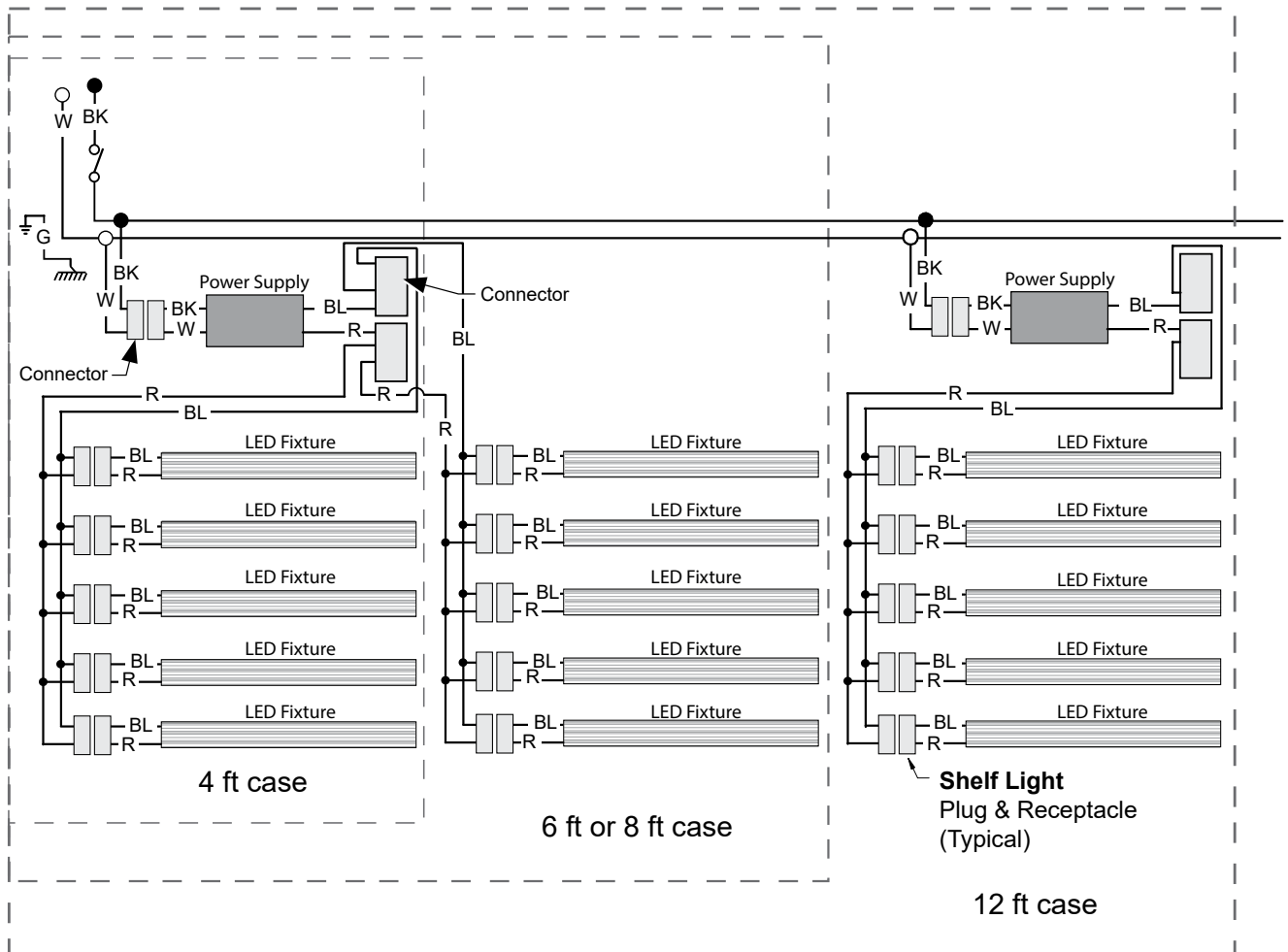
All components must have mechanical ground, and the merchandiser must be grounded.

- R = Red Y = Yellow G = Green BL = Blue BK = Black W = White
- = 120V POWER ○ = 120V NEUTRAL ⚡ = FIELD GROUND ⏏ = CASE GROUND

Optional LED Shelf Lighting

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Dairy / Deli / Beverage / Produce

Shelf Harness and LED Light Circuits for 4 or 5 Rows of Shelves

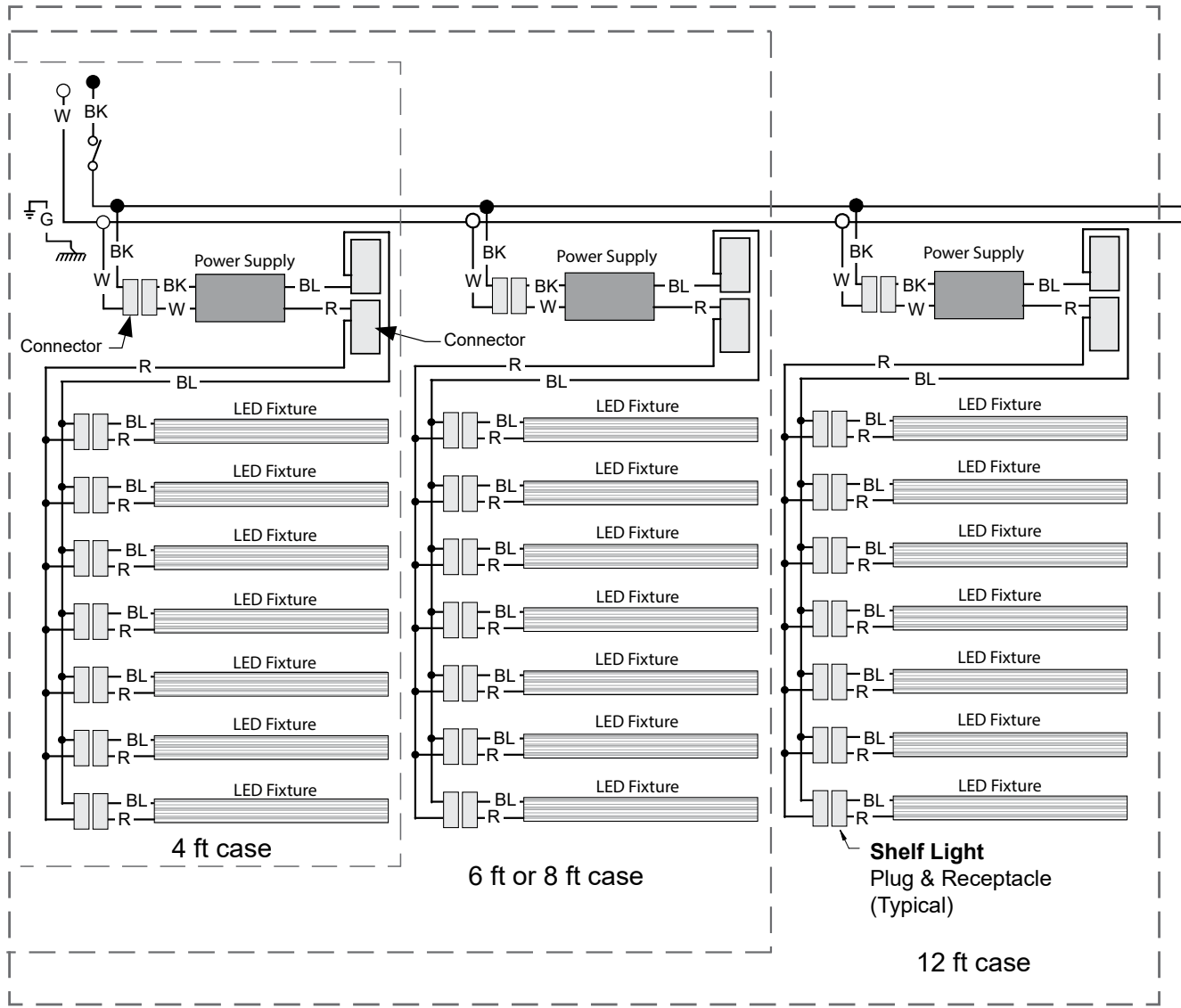


WARNING

All components must have mechanical ground, and the merchandiser must be grounded.

R = Red Y = Yellow G = Green BL = Blue BK = Black W = White
 ● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND ≡ = CASE GROUND

Shelf Harness and LED Light Circuits for 6 or 7 Rows of Shelves



WARNING

All components must have mechanical ground, and the merchandiser must be grounded.

R = Red Y = Yellow G = Green BL = Blue BK = Black W = White
 ● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND *mm* = CASE GROUND

Estimating Refrigeration and Electrical Load (for comparison purposes only)

Case Btu

To determine Btu for a case, refer to the performance data chart on page 2. Select lit or unlit shelves, then select the type of remote refrigeration system (parallel or conventional), which will give Btu/hr/ft. Multiply this number by the length of the case to determine Btu per hour. Add 10 BTU per foot per hour for each row of LED shelf lights.

Case Electrical

Refer to store legend to determine number of circuits. Lighting should be specified in store legend.

Fan electrical load for a case is computed by selecting the case length and fan voltage on page 6. For example, a 12 ft case uses 3 fans. The store legend specifies fans on a 230V circuit. In this instance, fans use 0.50 Amps and the MCA is 0.70. When applied, ambient fans, anti-sweat heaters, controllers, etc. must be included in the MCA. Include lights in the MCA if lights are on same circuit.

Lights may be on a separate circuit. To estimate lighting load: select case length (12 ft), canopy lighting [standard or optional] (here 0.70 for standard), and shelf or rail lighting [maximum for which case is wired] (1.48 for six shelves); then add together [0.48 + 1.48 = 1.96 amps for 120V] (for 230V, multiply 1.96 * 0.52 = 1.02).

Line Sizing — Refer to store legend.

Hussmann Line Sizing Charts are engineered for use with Hussmann refrigeration equipment.



Scan the QR code with your mobile device to access additional product information or order parts.

Parts may also be ordered at:

parts.hussmann.com

Call toll free: 1.855.487.7778

Revision History

Revision A: September 2019: Original Issue